

Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

June 13, 1975

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DIRECTOR

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Mr. Arnold Hanson, 820 - 9th Ave. S.W., Sidney
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Mr. Johnny Schmitt, Chief of Police, Sidney
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Bruce Harris, Mayor, City of Sidney, Sidney
City-County Planning Board, Richland County Courthouse, Sidney

The enclosed final environmental impact statement has been prepared regarding the issuance of a waste discharge permit for Tenderloin Industry, Inc. of Sidney, Montana. This impact statement contains a summary of the public



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hearing which was held regarding this action on April 23, 1975 in Sidney, Montana. Also included in this statement is a discussion of the alternative which has been selected by the Department of Health and Environmental Sciences. This impact statement is submitted for your consideration and comments will be accepted for 30 days following issuance of this statement. All comments should be sent to the undersigned.

Very truly yours,

Steven L. Pilcher
Agricultural Wastewater Specialist
Water Quality Bureau
Environmental Sciences Division

SLP:vlf
Enclosures
cc: Ben Wake

A FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR
THE PROPOSED ISSUANCE OF A WASTE DISCHARGE PERMIT
TO TENDERLOIN INDUSTRY,
AN ANIMAL CONFINEMENT FACILITY NEAR SIDNEY, MONTANA

Pursuant to the Montana Environmental Policy Act, Section 69-6504(b)(3) and the act to control water pollution, Section 69-4801 through 69-4827, the following final environmental impact statement was prepared by the Department of Health and Environmental Sciences, Environmental Sciences Division, Water Quality Bureau, concerning Tenderloin Industry, Inc. and a request by Mr. Ing Svarre, President, for a waste discharge permit for their animal confinement facility located southeast of Sidney, Montana.

Description of the Proposed Action:

MAC 16-2.14(10)-S14460, the Montana Pollutant Discharge Elimination System Rule, requires that the owner or operator of any point source discharging pollutants into state waters make application for a waste discharge permit. Animal confinement facilities are, by rule definition, a point source; and a permit is therefore required. This permit then places certain limitations on any discharge which might occur from that point source.

Tenderloin Industry, Inc. has operated an animal confinement facility at their present location since September of 1967. The facility is located approximately 1.0 mile southeast of Sidney, Montana and is situated in the SW $\frac{1}{4}$ of Sec. 3, T. 22 N., R. 59 E., of Richland County. The use of this area is primarily for agricultural purposes, but due to the proximity to the city of Sidney, there are a number of residences located between the animal confinement facility and the community itself. Very little development has taken place to the east or south of the animal confinement facility. One home is, however, located directly across the road to the south of the facility. At the time the facility was constructed there were no laws or rules in existence which would govern site selection. A check with the local planning agency revealed that there is no zoning in effect for that area at this time, and that a plan for area development has not yet been completed. The location of this animal confinement facility with reference to the community of Sidney and other geographic features is indicated on Figure 1. Figure 2 indicates in more detail the physical features of the animal confinement facility.

The animal confinement facility encompasses approximately 50 acres and has an operating capacity for approximately 5,600 beef feeder cattle. The topography of the area is relatively flat with an easterly slope of 0 to 2.0 percent. A concrete apron has been constructed along the feed bunks and under the automatic waterers, but the remainder of the feeding area has an earthen surface. The feeding operation is classified as an open lot type feeding operation as minimal shelter is provided for the livestock. Cattle are placed in the pens and fed a concentrated ration in fence line banks until they reach market weight of approximately 1,100 pounds. Feed for these animals is purchased locally and mixed at a mill located adjacent to the animal confinement facility.

The waste material which accumulates on the surface of the animal confinement facility is mixed through hoof action with soil particles and is periodically pushed into mounds within the pens. Mounding of the waste material and soil is a common waste management program in areas where natural slope is not provided. The waste material in these mounds undergoes anaerobic decomposition, thereby reducing the total volume of waste material which must be removed at a later date. The mounds also provide the livestock with a dry loafing area as surface moisture will drain from the mounds quite rapidly and the area is warmed slightly from the anaerobic decomposition process taking place within the mounds. The pens are thoroughly cleaned and the manure removed at least every 60 days. This waste material is then used by area farmers as fertilizer on their agricultural land. Many acres of such land are available for waste disposal under this type of arrangement.

Extraneous drainage from above the animal confinement facility does not reach the feedlot itself due to the relatively flat topography of the area and the location of a county road immediately west of the facility. The only wastewater generated will then be from precipitation which falls directly on the feedlot surface. Precipitation of less than approximately 0.5 inches will be absorbed in the manure pack on the feedlot surface. Rainfall or snow-melt which results in greater amounts of precipitation on the feeding area will result in surface runoff. The soil-manure interface which is formed by the hoof action of the animals mixing the soil and the waste material will, if undisturbed, minimize percolation of this wastewater through the soil profile. Due to the relatively flat topography, the feeding area does not drain rapidly and results in ponding of the wastewater on the feedlot surface. An effort has been made to improve the surface drainage and transport the contaminated surface runoff to the east out of the feeding area where it will be contained in two retention structures which have been constructed adjacent to the animal confinement facility. Retention Structure A as indicated in Figure 2, has been constructed in an abandoned channel of Lone Tree Creek. This retention structure was created by the construction of a dam at both the inlet and outlet of this abandoned channel, thereby preventing waste material from reaching the live stream. Retention Structure B as indicated on Figure 2 consists of a large retention pond which has been constructed adjacent to Lone Tree Creek. The dirt which was removed during the construction of the basin has been used to increase the height of the dike which separates the control facility from Lone Tree Creek. These control facilities provide storage in excess of the capacity required to retain all runoff which could be expected from a 10-year, 24-hour rainfall event of 2.6 inches or equivalent moisture for their locale. The effluent limitations which would be placed on the proposed permit would prohibit the discharge of process wastewater pollutants except whenever the 10-year, 24-hour rainfall event of 2.6 inches or more of rainfall occurs during any 15-day period.

Environmental Impact:

The issuance of a waste discharge permit for Tenderloin Industry would result in continued operation of the existing animal confinement facility. Such operation would, however, be in accordance with certain conditions which would be made a part of the permit.

The operation of any animal confinement facility such as this could affect a multitude of environment variables. Since the proposed action,

however, relates to the continued operation of an existing facility, the overall environmental impact associated with the action should not change significantly. Similarly, many of the demands which have been placed on the environmental resources have previously been made and the proposed action would have little if any input on those items.

Any animal confinement facility may exert an impact on the surrounding environment. When livestock waste is allowed to be discharged into the aquatic environment, serious damage may result. Several diseases can be transmitted through livestock waste to other animals as well as humans. Significant numbers of fecal coliform bacteria are present in the waste material and could contaminate water for other beneficial usage. The livestock waste requires excess quantities of oxygen to be stabilized in the aquatic environment. This may then result in an inadequate supply of dissolved oxygen being available for fish and other aquatic organisms. The waste material is rich in nutrients such as nitrogen and phosphorous and can result in an over-fertilization of aquatic vegetation, a phenomenon known as eutrophication.

This same fact can, however, result in a beneficial environmental impact. When quantities of waste material are applied to agricultural land as fertilizer, the nutrients are utilized by crops for growth. Heavy application of livestock waste to agricultural land can result in average crop increases of 20-40 percent. This is especially true in fields where the cropping practices do not return organic material to the soil at the end of the growing season such as in ensilage production.

As with any livestock operation, there are death losses. Dead animals which are not disposed of properly can have an impact on the area. Dead animals from this facility are disposed of immediately at a local rendering service.

Odors associated with livestock production are generally related to manure handling, but other potential odor sources exist. Wet feed, if not promptly removed, makes a contribution to odors as does the decomposition of dead animals if they do not receive proper handling. Animal feeds also have various odors as they are stored and handled. However, feed odors are not generally regarded as offensive as those from the decomposition of manure.

Manure is a complex mixture of carbohydrates, fats, proteins, and their breakdown products. When manure is in a suitable environmental condition during handling, it serves as a substrate for biological growth. If this decomposition takes place in an anaerobic environment, and if the manure has a surface exposed to the atmosphere, odorous gases will escape. While more than 45 chemical compounds have been identified in odorous air from animal waste decomposition, there are a few which seem to be more significant than others. These would include ammonia, hydrogen sulfide, mercaptans and volatile organic acids. Although at extremely high concentrations certain odorous gases are known to be toxic to both humans and livestock, the primary concern is one of annoyance or nuisance to humans.

In the past, inadequate surface drainage within the feeding area has resulted in excessive ponding on the lot surface. Such areas provide the anaerobic environment which is so conducive to the production of odors, such

as those previously discussed. The magnitude of these odors appears to be directly related to the amount of area which is allowed to remain in an anaerobic state. Likewise, the amount of waste material present on the feedlot surface and therefore subject to decomposition under anaerobic conditions may directly determine the magnitude of odors. Excessive accumulations of waste material and ponding of surface runoff within the feeding area can result not only in direct odor emissions, but results in dirty, manure-covered animals. The warm body of an animal, when covered with wet manure, makes an area of accelerated bacterial growth and odor production. Once produced, the odorous by-products of manure decomposition are quickly vaporized into the air by animal heat. It is therefore essential to frequently remove the waste material and provide adequate surface drainage.

Complaints of odors have been received from several persons residing in the area. While records indicate that the most prevalent wind direction for the area is from the west-northwest which would carry odors away from most nearby occupied dwellings, wind direction is variable and can drive the odors in almost any direction.

Montana Administrative Code 16-2.14(1)-S1480 relating to Control of Odors states that no person shall cause, suffer, or allow any emissions of gases, vapors or odors beyond the property line in such a manner as to create a public nuisance. From complaints which have been received, it would appear that odors do emanate from this facility and may therefore be in violation of Montana's Administrative Code.

While all livestock manures will attract and/or produce flies, proper management of these wastes coupled with a concerted fly control program should reduce fly production on cattle feedlots. In the absence of proper management of agricultural solid wastes and adequate facilities and control programs in this industry, excessive populations of vectors (flies, mosquitoes, rodents, etc.) may occur. Excessive vectors are those which: (1) occur in numbers considerably exceeding those of surrounding areas; (2) are associated with the design, layout and management of the operation; (3) spread widely from the area; and (4) can cause detrimental effects on the public health and well-being.

Excessive vectors (flies) were found to be associated with the Tenderloin Industry Feedlot near Sidney, as indicated below. In July 1974 fly traps were set out at three sites: (A) about 80 yards from the feedlot, (B) about one-half mile from the lot, and (C) in Sidney. There were 2,620 flies taken at Site A and only 35 and 20 at Sites B and C.

Classification of 143 specimens collected at Site A revealed the following species distribution: Musca domestica (house flies) - 5; Sarcophaga sp. (flesh flies) - 6; Fannia sp. (lesser house flies) - 1; Muscina sp. (false stable flies) - 122; blue bottle flies - 4; and green bottle flies - 5.

Extensive amounts of wet manure with standing water on some areas of the feedlot provided an extensive breeding medium for fly species in the area. For example, false stable flies (representing 85% of those collected at Site A) lay their eggs on decaying organic matter including human excrement and rotting cow dung. Conversation with the foremen confirmed that extensive breeding was taking place.

House fly dispersal is usually limited to 0.5 to 2 miles. Flies may migrate in large numbers from one to four miles. Smaller numbers may move 20 miles. Bottle flies are also known to move 10 miles in a few days.

The house fly is regarded by the Center for Disease Control, United States Public Health Service as the species of greatest public health significance because of its close association with man and its ability to transmit disease. The false stable flies are known to frequently enter houses and are attracted to human foods. It is a vector of intestinal disease organisms and may cause intestinal myiasis. Blue bottle flies and green bottle flies may cause sores on animals and may cause intestinal myiasis. Lesser house flies and flesh flies are of lesser importance in transmitting human diseases but may cause intestinal myiasis.

Flies in the feedlot vicinity were also observed to be a serious problem and to constitute an adverse effect on the well-being of neighbors. For example, one house had been moved from the area. Fly specks had extensively defaced another pre-existing home and necessitated frequent repainting. Large numbers of flies resting on the screens and surfaces of the house make it impossible for residents to enter without also admitting large numbers of flies.

The proposed action should have little effect on the wildlife which frequent the area or the wildlife habitat of that same area. As stated earlier, any discharge of waste material to Lone Tree Creek might have a temporary effect on the aquatic ecosystem. The terrestrial ecosystem should not, however, be affected. Lone Tree Creek supports a resident population of Eastern Brook Trout (*Salvelinus fontinalis*) and Largemouth Bass (*Micropterus salmoides*) in the area upstream from Sidney. Channel alterations and underground flow in the lower reaches of the stream have limited the fishery in that area. A more diverse population of fish is present in the Yellowstone River, but impact on that body of water should be minimal due to the dilution effect and the distance between the animal confinement facility and the Yellowstone River. There may be some movement of fish between the area above Sidney and the Yellowstone River, and it would be these individuals that would be affected by any discharge from the animal confinement facility.

The waste areas around the perimeter of the animal confinement facility normally develop excessive vegetative cover which provides excellent habitat for game birds and small animals known to frequent the area. Many birds, including game birds, visit the area during the winter months as the grain used for animal feed provides readily available food. The availability of food draws large numbers of local and migrating birds to the area. While it is normally not a problem, a potential for disease transmission does exist.

The practice of confining animals in a relatively small area which results in an accumulation of waste material within that enclosure is found to be aesthetically unpleasant. Montana is, however, primarily an agricultural state and most of the residents are familiar with livestock operations.

When this animal confinement facility was constructed in 1967, it did result in agricultural land being taken out of production. The proposed action would not, however, result in additional production loss since no expansion is proposed and no additional land would be required.

The animal confinement facility currently has a substantial impact on the economic environment of the Sidney area. The firm employs approximately 10 persons with an annual payroll of approximately \$75,000. Other operational expenses including taxes paid on the facility amount to approximately \$100,000. Approximately 15,000 head of cattle are handled each year through the facility. The majority of these cattle are purchased in Glendive and Sidney, in Montana, and in Williston, North Dakota. While it is difficult to place an average value on the animals due to varying weights and market values, it is apparent that the yearly dollar value would be substantial. These animals will consume in excessive \$1,600,000 in feed materials each year. Most of the grain and silage necessary to feed the animals is purchased in the surrounding area. Local trucking firms are employed to transport the raw materials to the animal confinement facility and to transport the finished animals to market. These vehicles may cause temporary traffic congestion and cause dust and wear on the roads of the area, but also pay substantial taxes and fees.

Adverse Environmental Impacts Which Cannot Be Avoided:

As mentioned earlier in this statement, complete odor elimination from animal confinement facilities is not currently within technical and economic limits. There will be days when the combination of environmental conditions is such that odors will exist. The cleaning of the pens and removal of waste material will in itself create a temporary increase in odor levels as the manure pack is disturbed. Wind direction and velocity would then determine if area residents would be affected. If a good waste management program is not strictly adhered to, the odors will be much more severe and will occur much more frequently.

Periodic increases in fly population throughout the area might likewise be experienced during the fly season. While an increase in fly numbers might be experienced even with an adequate control program, the numbers should not be expected to create a health problem or nuisance conditions. Again, however, without a good control program, the fly problem could become significant and create hardship for the area residents.

Under extended dry weather conditions the movement of animals may result in fine particulate matter being discharged into the air. Air movement may then carry this particulate matter to the surrounding residences.

Although the waste control facilities provide more storage than would be required to retain the surface runoff which could be expected from a 10-year, 24-hour rainfall event, it is possible that a freak storm could result in enough rainfall in a relatively short period of time to create more runoff than could be contained in the control facility. This would then result in a discharge of livestock waste to Lone Tree Creek. Such a discharge could result in temporary violations of the Montana Water Quality Standards but would occur at a time when there was significant surface runoff from surrounding land.

Noises associated with this type of operation could not be avoided. New cattle in the animal confinement facility may bawl until adjusted. The operation of equipment to process the livestock feed and the trucks to dispose the feed will also add to the noise levels.

Since most of the raw materials and the finished products are transported by trucks, temporary traffic congestion and road dust cannot be avoided.

Alternative Actions:

The following alternatives would be available with regard to the proposed action:

(1) Deny the permit request - Montana law through the Montana Pollutant Discharge Elimination System Rule, requires that the owner or operator of any point source discharging pollutants into state waters shall make application for a waste discharge permit. By denying the request for a permit, any discharge from this animal confinement facility to Lone Tree Creek would be in violation of state law and subject the owners and/or operators to the penalty provisions of Montana law regarding water pollution.

(2) Relocation of the existing facility - While this animal confinement facility is located at what would now be considered an unacceptable site for a new facility, there were no regulations or guidelines available for site selection at the time this facility was constructed. To date, zoning regulations do not exist for Richland County. The movement of this facility to an alternate site would result in a significant financial loss to the owners. These facilities would be valued at several hundred thousand dollars and a large percentage of the facilities could not be reused at an alternate site. While a site further removed from the community of Sidney might be located, it would be difficult to select a site which was not reasonably close to occupied residences. In order to be an acceptable site for an animal confinement facility, the location must be easily accessible with good roads, must be near land capable of producing grain and silage, must have a good supply of fresh clean water, and must be near electrical service lines. While proper site selection can minimize the adverse environmental impact, it can by no means eliminate it. A good waste management program would be required at almost any site to make the facility environmentally acceptable. If, at an alternate site, a possibility for discharge of pollutants to state waters still existed, a waste discharge permit would be required.

(3) Discontinue feeding - The elimination of livestock to eliminate problems caused by the livestock wastes would be an effective solution to the problems which exist but would not appear very practicable. Such action would also result in significant loss of income to people in the Sidney area.

(4) Issue short-term waste discharge permit - The issuance of a waste discharge permit would specify the conditions under which a discharge of waste material to state waters would be permitted. This permit would also contain other requirements relative to the waste management program, waste disposal practices and fly control program. The applicant would be required to improve and maintain surface drainage within the feeding area in order to keep the pen surface as dry as possible. This would not only reduce odors, but would minimize the areas conducive to fly breeding. The cost associated with this requirement should not increase significantly over present cleaning costs.

A concerted effort would be required to establish and continue a fly control program. The purchase of an adequate mist blower would be recommended.

A specific fly control program consisting of baiting and spraying would be established and approved by the Department of Health and Environmental Sciences prior to the coming fly season. The cost of the spraying equipment and chemicals used should not, however, work a consequential economic hardship on the operations of this facility. A high stocking rate in the pens would also help to control flies as the larvae are milled by the hoof action of the livestock. The permit could be issued for a period of one year to determine if the specified waste management programs were providing adequate environmental protection.

Relationship Between Local Short-term Uses of the Environment and the Maintenance and Enhancement of Long-term Effects:

In the short-term, the land is most economically valuable to the owners for continued operation of an animal confinement facility. The proposed action would be a recommitment of resources which were originally committed at the time the facility was constructed. Commitment of resources for an animal confinement facility may well be the best short-term use. The resources involved, such as land, would not be used up in the short-term and could be converted to another use if at a later date an alternate use to improve long-term productivity should become apparent. The short-term use should not then produce any irreversible long-term effects.

Irreversible Commitments of Environmental Resources:

Since the proposed action relates to the issuance of a waste discharge permit for an existing facility, there would be very little additional irreversible commitments of environmental resources. The land which was originally taken out of agricultural production for the purpose of constructing the animal confinement facility would continue to be used for that purpose and would be unavailable for agricultural production. Since no expansion of the animal confinement facility is proposed, the energy consumption associated with the facility should remain at or below its existing level. The proposed action should result in a reduction in both the severity and frequency of odors and significantly reduce the frequency of discharges of waste material to state waters. In general, the proposed action should result in a reduction of environmental resource commitments below the levels which have existed for this facility in the past.

Public Objection to the Proposed Action:

The Department of Health and Environmental Sciences in accordance with the Montana Pollutant Discharge Elimination System Rule prepared and circulated a public notice regarding the proposed action. Following the circulation and posting of this public notice, our office received a number of letters in opposition to the proposed action and commenting on environmental problems caused by this animal confinement facility. A petition bearing the signatures of approximately 100 local residents was also received following the circulation of the public notice. This petition protested the proposed issuance of a waste discharge permit and requested that a public hearing be held to discuss the apparent problems.

We hope that many of these questions were answered in the draft environmental impact statement; but to allow for full public participation, a hearing was held in Sidney to allow for a thorough discussion of the existing problems and our proposed action. A copy of the summary of public hearing is attached.

Selection of Alternative:

Following the evaluation of all available information including testimony presented at the public hearing, the Department of Health and Environmental Sciences, Water Quality Bureau, has selected Alternative No. 4 as outlined in the environmental impact statement. Under this alternative, the Department would issue a one-year waste discharge permit. This permit will contain an effluent limitation which will require no discharge of pollutants to Lone Tree Creek except whenever rainfall in excess of 2.6 inches occurs during any 24-hour period or whenever 2.6 inches or more of rainfall occurs during any 15-day period. A number of other conditions would also be placed on this waste discharge permit to minimize other adverse environmental effects. A definite fly control program will be developed by representatives of the Department of Health and Environmental Sciences, County Health Department, and representatives of the animal confinement facility. A program for the removal and disposal of waste material from the surface of the animal confinement facility will likewise be developed. The permit will also include a condition that dead animals be removed within 24 hours of their death.

If the animal confinement facility is not operated and managed in accordance with these conditions, the waste discharge permit will be revoked in accordance with the provisions of the Montana Pollutant Discharge Elimination System Rule.

This statement was prepared by Steven L. Pilcher, Agricultural Wastewater Specialist for the Montana Department of Health and Environmental Sciences, Water Quality Bureau, with assistance from Kenneth L. Quickenden, Ph.D., R.S., Vector Control Specialist, Environmental Services Bureau, with information furnished by Tenderloin Industry, Inc.



Figure 1

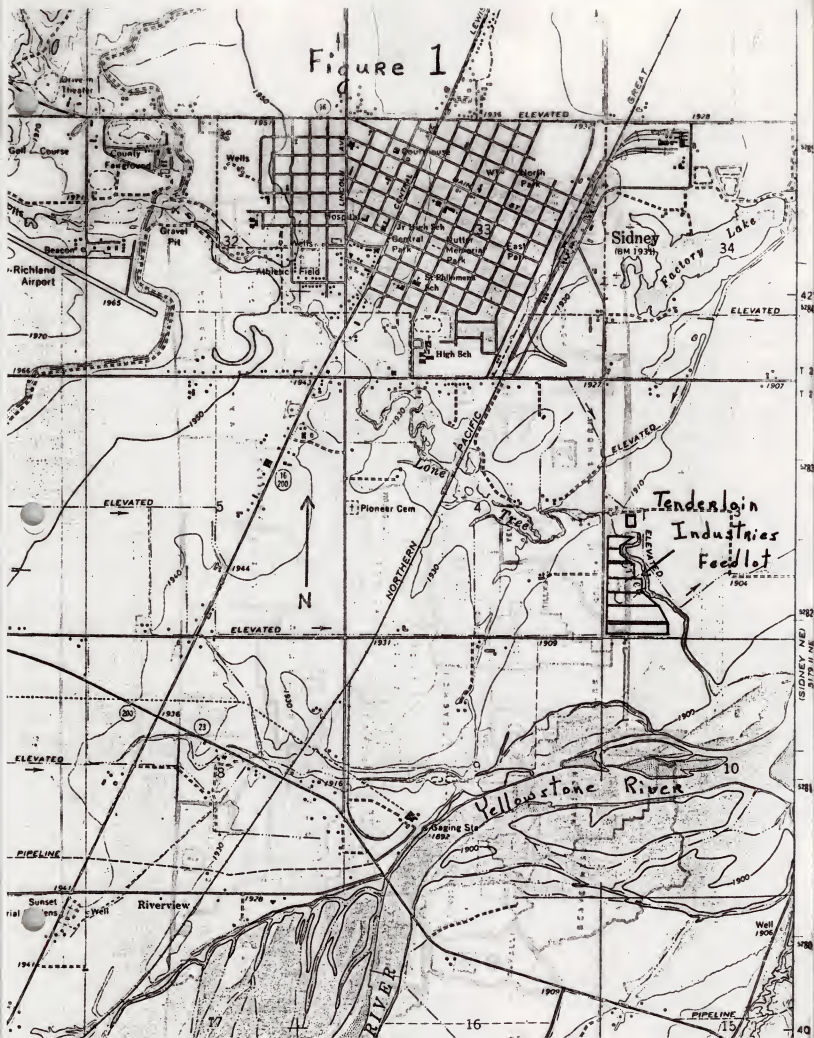
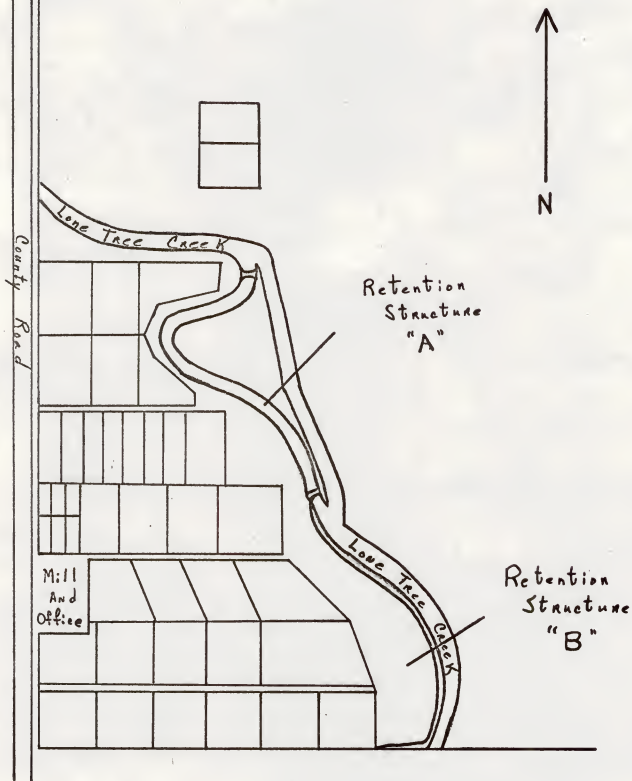


Figure 2
Tenderloin Industries



SUMMARY OF PUBLIC HEARING
TENDERLOIN INDUSTRY, INC.

A public hearing regarding the draft environmental impact statement and the proposed issuance of a waste discharge permit to Tenderloin Industry, Inc., an animal confinement facility near Sidney, Montana was held at 7:30 p.m. on April 23, 1975 in the Moose Lodge Meeting Room in Sidney, Montana. Mr. Richard Klinger, Staff Attorney, opened the hearing proceedings. Mr. Klinger introduced himself and Mr. Steve Pilcher, both of the Montana Department of Health and Environmental Sciences, Water Quality Bureau, and Mr. Gary Polvi representing the United States Environmental Protection Agency, Region VIII, in Denver, Colorado. Mr. Klinger apologized for the fact that the public hearing had to be postponed from its original date due to inclement weather at that time.

Mr. Klinger then discussed state and federal legislation and regulations affecting the operation in question, including the Federal Water Pollution Control Act Amendments of 1972 and specifically the National Pollutant Discharge Elimination System which requires anyone discharging pollutants to the nation's waterways apply for and obtain a waste discharge permit. Mr. Klinger further explained that by definition animal confinement facilities are required to make application for such a permit. Mr. Klinger also explained the Montana Environmental Policy Act which requires that any state agency which is asked to make a decision on a matter which could be environmentally controversial, conduct a thorough environmental review before making such decision. An important part of this review process is to provide the general public with an opportunity to review and comment upon the environmental evaluation prepared by that state agency.

Mr. Klinger then asked for an indication as to the number of people wishing to present oral testimony and asked that they not duplicate testimony previously given. He also asked that anyone wishing to present oral testimony state their full name and address for the record so that a copy of the final environmental impact statement might be sent to them.

Mr. Klinger introduced Mr. Steve Pilcher who proceeded to summarize the draft environmental impact statement as it related to the animal confinement facility and discuss the issues at hand.

Mr. Klinger then asked that those in opposition to the issuance of a waste discharge permit for this animal confinement facility come forward and present their testimony. Mrs. Jean Thirud, 706-8th Ave. S.E., Sidney, Montana, read a letter written by her neighbor, Mrs. Patricia Kicker. This letter stated that flies not only created nuisance conditions but were also of the biting variety and that it was impossible to utilize their yard during the summer months. Mrs. Kicker felt that something could and must be done to control the flies in this situation. Mrs. Thirud then submitted for the review of the state officials present at the hearing pictures of flies which

had been collected at their residence on given days during summer months. Mrs. Thirud stated that they likewise were unable to eat in or enjoy their yard due to the number of flies present. Mrs. Thirud stated that they had seriously considered the purchase of electric fly traps, but that several of these instruments would be required, and that they were extremely costly. She further stated that due to fly specks on their house it was necessary to repaint quite frequently. Mrs. Thirud felt that the mounding which was practiced within the feeding area contributed significantly not only to the fly problem but quite possibly to a rodent problem. Mrs. Thirud stated that odors were noticeable at times throughout the community of Sidney as well as in the air as much as 500 feet overhead.

Mrs. Mary Moore, Box 708, in Sidney, Montana stated that she could probably tell more about a feedlot than anyone in the room. Mrs. Moore asked how many in the audience had ever lived beside a commercial feeding operation. Mrs. Moore proceeded to explain that flies, other insects and dust were all significant problems associated with this animal confinement facility. She indicated that problems were so severe that they were forced to relocate their home away from the animal confinement facility. Mrs. Moore submitted a number of photographs in support of her claim. Mrs. Moore also summarized correspondence she has had with the various state and local agencies regarding this matter.

Mr. Lester Moore, Box 708, Sidney, Montana stated that they had purchased their farm in 1947, but were forced to move due to the flies, odors and other problems associated with this animal confinement facility. Mr. Moore indicated that such relocation had been extremely costly for them, and that no one had offered to "buy them out" or provide any relief for their moving expenses. Mr. Moore stated that he observed and documented with photographs a ditch which had been cut in the dike of the livestock waste control facility which allowed the waste material to directly enter Lone Tree Creek. Mr. Moore suggested that the operators of the animal confinement facility consider their effect on other people. He indicated that waste material is not removed every 60 days as indicated by the operators of the facility and that dead animals are likewise not promptly removed. Mr. Moore also submitted for review photographs of dead animals which were partially eaten by scavengers indicating that they had lain there for a substantial time. Mr. Moore said that loose cattle from the animal confinement facility periodically damaged crops on his property and that efforts to recover these costs had not been fruitful.

Mrs. Ray Monson, Route 1, Box 1, Sidney, Montana testified that she did not oppose animal confinement facilities as such, but she felt that the operators of this particular facility could do a much better job in the management of the waste material. Mrs. Monson stated that the liquid drainage from a silage pile near her home was allowed to drain across the county road and would get on cars and other vehicles as they passed. She indicated that this created serious odor problems. She testified that if the Department of Health and Environmental Sciences could require the operators of animal confinement facilities to do a better job of waste management, that the facilities should be able to operate without creating significant problems.

Mr. Klinger then asked if there were any other opponents who wished to present oral testimony. Mrs. Moore, who had previously testified, then asked as to the location of the site used for manure disposal during the summer months. Mr. Klinger indicated that the question could remain on the record but that a response to the question was not permitted at this time. There being no other opponents wishing to present testimony, Mr. Klinger asked for testimony by those in support of the issuance of a waste discharge permit for the Tenderloin Industry, Inc. feedlot.

Mr. Bill Myers, P. O. Box 407, Sidney, Montana testified in support of the proposed action. Mr. Myers stated that he was currently involved in the livestock supply business and prior to that had worked with the production credit association. He stated that an animal confinement facility of this magnitude added significantly to the economy of the valley by providing numerous options for local cattlemen. He felt that the feedlot provided a positive force to the economy. He stated that although his business was located approximately 1 and 1/2 miles from the animal confinement facility, he had never experienced any odor problems from that source.

Mr. Gene Iverson, Route 1, Sidney, Montana stated that he is a feed dealer and as such is on the premises of this animal confinement facility at least once a week. He further stated that he does not feel that flies and odors constitute a significant problem. He admitted that the waste material does increase both flies and odors, but he felt that the operators of this facility had made an attempt to control these problems. He stated that fly bait was always available around the animal confinement facility and that a fogger was used periodically for additional fly control. He stated that flies did not constitute a problem at his business establishment in Sidney, and he felt that the people should be glad to have an animal confinement facility such as this near Sidney.

Mr. Ken Kling, P. O. Box 464, Sidney, Montana stated that he is involved in a farming operation and that part of the land which they farm is owned by Tenderloin Industry. Mr. Kling testified that the Sidney municipal sewage lagoons located approximately two miles north of the Tenderloin feedlot are also a significant source of flies and that the smell from that facility is much worse than from the feedlot. He further stated that it is a known fact that flies will breed in still water. Mr. Kling testified as to the fertilizer value of manure and indicated that with the increasing cost of commercial fertilizer, more and more livestock waste would be removed and used as fertilizer, thereby reducing the fly and odor problem.

Mr. Howard Ellis, 101-9th Avenue, N.W., Sidney, Montana, is a cattle buyer. He stated that in his many years in this occupation, he has had an opportunity to view a number of feedlots in several different states. Mr. Ellis testified that in his opinion the Tenderloin Industry feedlot qualified as one of the better animal confinement facilities. Mr. Ellis testified that on occasion, he has recommended that other animal confinement facility operators contact Mr. Svarre to learn more about his effective fly control program. He further stated that in his opinion, dead animals were promptly removed from the facility.

Mr. Arnold Hanson, 820-9th Ave. S.W., stated that he was a teacher at the Sidney High School and fed cattle at Tenderloin Industry, Inc. feedlot. He testified that at the school they have no screens and that flies do not constitute a problem. He stated that they have problems, but flies are not one of them. Mr. Hanson testified that he was very happy with the way in which his livestock were cared for at the feedlot and felt the operators were doing a fine job of waste management. He stated that it was somewhat amusing to think that the livestock industry had survived a rather difficult financial period only to find that they might be "knocked off" by a fly.

Mr. Don Maltese, 820-7th Avenue S.E., stated that he is employed by the Richland National Bank and has lived in the Sidney area most of his life. He testified that he lives approximately one block from one of the persons opposing the feeding operation but that flies were not a problem for them. Mr. Maltese further testified that they quite frequently eat out in the yard without fly problems and that two years ago he had painted his house without being bothered by flies. Mr. Maltese submitted the following evaluation of persons signing the petition in opposition to the issuance of the permit for the animal confinement facility:

Seven people located less than one mile (in the country)
31 people located one to two miles but within the city limits of Sidney
Three people located one to two miles in the country
42 people located two to 10 miles in the country
17 people located 10 miles or more in the country
He also stated that three people had signed the petition that are under age.

Mr. Maltese stated that he did not see any problems as far as Tenderloin was concerned.

Mr. Johnny Schmitt, Chief of Police, Sidney, Montana testified that he felt the problems could be solved if the parties involved would be willing to sit down and discuss the issue.

Mr. Sherill Henderson, Box 101, Route 1, Sidney, Montana stated that he was quite amused by the alleged fly problem because he operated a petroleum products bulk plant approximately 1 and 1/4 mile from Tenderloin Industry feedlot and had experienced no problems whatsoever with flies. Mr. Henderson further testified that the financial impact of this feeding operation on the community of Sidney through the sale of feed, taxes and wages, was very significant. Mr. Henderson stated that some of the problems such as dust can be minimized but cannot be totally eliminated. He stated that people must tolerate some of these problems as agriculture is the main economy of that area.

Mr. Melvin Bakken, Route 1, Sidney, Montana discussed the importance of economics in this issue. He stated that the feedlot contributed significantly to the economy of the area, and if the feedlot cleans up and is managed properly, they should be given a waste discharge permit.

Mr. J. Lalonde, Vice President of Tenderloin Industry, Box 71, Sidney, Montana provided a brief history of the construction of this animal confinement facility. Mr. Lalonde testified that after contacting a number of state and federal agencies and private consulting firms, they found that very little information was available regarding the establishment of a new confined feeding operation. He stated that the site was selected partially because it was already owned by the company. Mr. Lalonde further stated that manure management and disposal has been a real problem for the operators. He felt, however, that with the increased cost of commercial fertilizer the demand for livestock waste for its fertilizer value has also increased. Mr. Lalonde pointed out the fact that there are no occupied residences to the east or southeast of the animal confinement facility and he does not feel that the feedlot is significantly affecting the quality of the groundwater. Mr. Lalonde stated that the adjacent property owners to the south of the feedlot who in the past have experienced significant fly and odor problems will be moving out of the area as the feedlot has purchased their property.

Mr. Ing Svarre, President, Tenderloin Industry, Inc., 106-9th Ave. S.W., Sidney, Montana stated that he had been involved in the livestock business for quite some time and that he was instrumental in starting the first livestock auction in Sidney, Montana. Mr. Svarre admitted to fly and odor problems and stated that due to the amount of time that he spent at the facility he was as aware of the problem as anyone. He further testified that every attempt is made to remove dead animals within 24 hours and that these animals are disposed of by the Sidney Rendering Company. Mr. Svarre stated that during the past year, they have started using a new fly bait called Golden Maddrin which has proved successful. He stated that although this bait costs approximately \$98 per hundred pounds, it will be used as frequently as necessary to insure fly control. Mr. Svarre stated that many times the fly will congregate around trees and other vegetative matter and as such, they will be more noticeable for adjacent property owners then they will around the open animal confinement facility. He stated that manure is not always hauled out on a three-month interval, but it will at least be mounded within the pens, a practice which is used on animal confinement facilities throughout the United States. Mr. Svarre stated that their death losses were approximately 1 and 1/2 percent, which he felt was quite minimal when compared to death losses of other animal confinement facilities. Mr. Svarre testified that they are willing to cooperate to solve these problems and willing to put forth the effort necessary to do the same.

Mr. George Swenson, 721-3rd St. N.E., Sidney, Montana stated that he was a local businessman and also a director on the Sidney Chamber of Commerce. He testified that the differences which had been expressed at the public hearing should not be allowed to jeopardize the operation of the feedlot due to the economic contribution it made to the community of Sidney.

Mr. Harry Whitney, 615 W. 5th in Fairview, Montana stated that he had considerable feedlot experience. He testified that the Tenderloin Industry feedlot was operated better than many of the large feeding operations with whom he had been associated in the past.

Mr. Paul Cresop, Box 953, Sidney, Montana stated that he was serving as legal council for Tenderloin Industry, Inc. Mr. Cresop testified that

one fact which had been overlooked this evening was that there are approximately 30 to 40 small animal confinement facilities located within a relatively short distance of the community. He stated that all of these animal confinement facilities experience similar fly and odor problems as does the Tenderloin feedlot and that flies in Sidney could be coming from these facilities as well as a variety of other sources such as garbage cans. Mr. Cresop testified that the life blood of the community of Sidney and the northeastern area of Montana was tied very closely to agricultural and livestock production. He stated that without the animal confinement facilities there would be less odors and fewer flies, but there would also be very few ways to earn a living in that area. Mr. Cresop testified that the only time the feedlot has experienced problems with water was when the State Highway Department removed a culvert on Lone Tree Creek which resulted in the discharge of significant quantities of impounded water down Lone Tree Creek rather than flooding the community of Sidney. He stated that everything between Sidney and the Yellowstone River along Lone Tree Creek was inundated by water at that time. He confirmed earlier statements that persons living adjacent to this animal confinement facility had experienced at times significant fly and odor problems, but he felt that this problem was being somewhat solved since the feedlot had purchased the property of that party most severely affected. Mr. Cresop testified that without the livestock feeding industry in that area, the community of Sidney, Montana might not exist.

There being no further proponents to testify on behalf of the issuance of a waste discharge permit for this animal confinement facility, Mr. Richard Klinger thanked those in attendance for their interest in this matter, and then officially closed the public hearing.